

## **REMARKS**

In the Office Action mailed on October 5, 2004, claims 1-39 and 44 were pending. Claims 36-39 were withdrawn. Claims 1-17, 19-29, 31-35 and 44 were rejected, and claims 18 and 30 were objected to.

Claims 1, 22, 23 and 34 have been amended. The proposed amendments do not contain new matter. The subject matter of the amendments can be found in the originally filed specification and in the originally filed claims, among other places. Applicants respectfully request admission of the amended claims 1, 22, 23 and 34.

Claim 12, 13, 16-18, 29 and 30 have been canceled and are no longer at issue.

### **I. Rejection under 35 U.S.C. § 103**

In the Office Action at page 2, claims 1-17, 19-29, 31-35 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,582,455 ("Casariego"). The Examiner stated that Casariego fails to teach any examples or compositional ranges that are sufficiently specific to anticipate the compositional limitations of claims 1-17, 29-29 31-35 and 44, but the claims are prima facie obviousness because Casariego discloses ranges which overlap with those in the present invention. Applicants respectfully traverse the rejection.

#### **A. The Present Invention**

The present invention as recited in amended claim 1 is a blue colored, infrared and ultraviolet radiation absorbing glass composition having a composition comprising a base glass portion comprising: SiO<sub>2</sub> from 66 to 75 percent by weight, Na<sub>2</sub>O from 10 to 20 percent by weight, CaO from 5 to 15 percent by weight, MgO from 0 to 5 percent by weight, Al<sub>2</sub>O<sub>3</sub> from 0 to 5 percent by weight, and K<sub>2</sub>O from 0 to 5 percent by weight, and a primary solar radiation absorbing and colorant portion consisting essentially of: total iron from 0.6 to 2 percent by weight, FeO from 0.15 to 0.65 percent by weight, CoO from 30 to 250 PPM, Se from 1 to 15 PPM, TiO<sub>2</sub> from 0 to 0.9 percent by weight, and Nd<sub>2</sub>O<sub>3</sub> from 0 to 3 percent by weight, the glass having a redox in the range of 0.15 to 0.58, wherein at a redox range from 0.15 to 0.4, the range of CoO is from 60 to 250 PPM, and wherein at a redox range

greater than 0.4, the CoO is in the range of 30 to 100 PPM, and wherein at a thickness of 0.160 inches, the glass has a luminous transmittance (LTA) of 35% up to 70%; a color characterized by a dominant wavelength in the range of 482 to 487 nanometers and an excitation purity ranging from 8 to 30 percent; a total solar ultraviolet transmittance (TSUV) of 40 percent or less; a total solar infrared transmittance (TSIR) of 25 percent or less; and a total solar energy (TSET) transmittance of 40 percent or less.

The present invention as recited in amended claim 23 is a blue colored, infrared and ultraviolet radiation absorbing glass composition having a composition comprising a base glass portion comprising: SiO<sub>2</sub> from 66 to 75 percent by weight, Na<sub>2</sub>O from 10 to 20 percent by weight, CaO from 5 to 15 percent by weight, MgO from 0 to 5 percent by weight, Al<sub>2</sub>O<sub>3</sub> from 0 to 5 percent by weight, and K<sub>2</sub>O from 0 to 5 percent by weight, and a primary solar radiation absorbing and colorant portion consisting essentially of: total iron from 0.6 to 2 percent by weight, FeO from 0.15 to 0.65 percent by weight,

CoO from 30 to 250 PPM, Se from 1 to 15 PPM, TiO<sub>2</sub> from 0 to 0.9 percent by weight, and Nd<sub>2</sub>O<sub>3</sub> from 0 to 3 percent by weight, the glass having a redox in the range of 0.15 to 0.55, wherein at a redox range from 0.15 to 0.4, the range of CoO is from 60 to 250 PPM, and wherein at a redox range greater than 0.4, the CoO is in the range of 30 to 100 PPM and wherein at a thickness of 0.154 inches the glass has: a luminous transmittance (LTA) of 35% up to 60%, a total solar ultraviolet transmittance (TSUV) of 40 percent or less, a total solar infrared transmittance (TSIR) of 25 percent or less, a total solar energy (TSET) transmittance of 45 percent or less, and a color characterized by a dominant wavelength in the range of 482 to 487 nanometers and an excitation purity ranging from 8 to 20 percent.

#### **B. Casariego**

The Casariego reference discloses a glazing set. As defined in claim 1, the invention of Casariego is a glazing set mounted on an automobile vehicle, comprising a windscreen, front side windows and rear side windows and a rear window, wherein each of the rear side windows, both movable and fixed, and the rear window comprise a glazing pane comprising a colored glass sheet having a thickness of from 2 to 8 millimeters, wherein the colored glass sheet has a composition and, consisting essentially of, as coloring

agents: from 0.5 to 1.5% Fe<sub>2</sub>O<sub>3</sub> (total iron) with FeO content representing from 16 to 55% of the total iron content expressed in the form of Fe<sub>2</sub>O<sub>3</sub>; from 0.003 to 0.015% CoO; from 0.025 to 0.09%Cr<sub>2</sub>O<sub>3</sub>; and from 0 to 0.0025% Se.

### **C. Traversal of the Rejection**

Amended independent claim 1 includes all of the limitations recited in previously presented claim 18 as well as any intervening claims, and amended independent claim 23 includes all of the limitations recited in previously presented claim 30 as well as any intervening claims. At page 3 of the Office Action, the Examiner stated that claims 18 and 30 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As a result, Applicants respectfully request the withdrawal of the rejections of claims 1 and 23 over 35 U.S.C. § 103.

Claims 2-11, 14, 15, 19-22 and 44 directly or indirectly depend on claim 1 and recite the present invention in varying scope. The Examiner has stated that the amendments made to claim 1 would render the claim patentably distinguishable over the cited reference and claims 2-11, 14, 15, 19-22 and 44 are similarly distinguishable. As a result, claims 2-11, 14, 15, 19-22 and 44 are patentably distinguishable over the reference of record. Applicants respectfully request the withdrawal of this rejection of claims 2-11, 14, 15, 19-22 and 44 under 35 U.S.C. § 103(a).

Claims 24-28 and 31-35 directly or indirectly depend on claim 23 and recite the present invention in varying scope. The Examiner has stated that the amendments made to claim 23 would render the claim patentably distinguishable over the cited reference and claims 24-28 and 31-35 are similarly distinguishable. As a result, claims 24-28 and 31-35 are patentably distinguishable over the reference of record. Applicants respectfully request the withdrawal of this rejection of claims 24-28 and 31-35 under 35 U.S.C. § 103(a).

## **II. CONCLUSION**

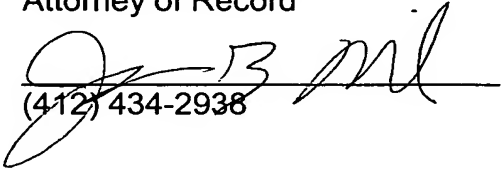
In light of the amendments and remarks presented in this correspondence, Applicants respectfully request the withdrawal of the following rejections: rejection of claims 1-17, 19-29, 31-35 and 44 under 35

U.S.C. § 103(a) as being unpatentable over Casariego; and allowance of claims 1-11, 14, 15, 19-28, 31-35 and 44.

If any questions remain about this application, the Examiner is requested to contact Applicants' attorney at the telephone number provided below. Thank you.

Respectfully submitted,

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